

January 24, 2017

Delaware USTAC



Agenda

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|----|--|-------------|
| 1. | Introductions | 10:00-10:05 |
| 2. | Review of Minutes from October 26, 2016 Meeting | 10:05-10:15 |
| 3. | Discussion of Responses to the Question of | |
| 4. | “What would you like the USTAC to Work On?” | 10:15-10:45 |
| | Improving the UST Installation Process | 10:45-11:00 |
| 5. | Break | |
| 6. | Discussion of Draft Changes to the UST Regulations | 11:10-11:45 |
| 7. | Updated Schedule For UST Reg Changes | 11:45-11:50 |
| 8. | Opportunity for Public Comment | 11:50-12:00 |



Purpose of USTAC

- The purpose of the Underground Storage Tank Advisory Committee is to provide feedback and assist the Department in developing changes to the Delaware Underground Storage Tank Regulations and improving Delaware's Underground Storage Tank Program.
- Members are expected to share their perspective and technical expertise to assist DNREC in these efforts.



Meeting Governance

Chair: Alex Rittberg and Co-Chair Lori Spagnolo (Primary Facilitators)

Focuses on the process – the how of the session. Preserves the integrity and disciplined use of the process. Guides the process without directing it. Invites people to attend the meeting and designates them as committee members.

Committee Members Share responsibility for a successful group session with the primary facilitator.

Note Taker: Jenn Vavala Takes detailed notes of the meeting for distribution later.

Timekeeper: Nina Dietrich Monitors how long the group is taking to accomplish its tasks. Provides regular updates to keep group members moving forward.

Promulgation Schedule



Tuesday January 24, 2017	Discuss Initial Draft of Changes with the USTAC
Wednesday April 19th, 2017	Share 2nd draft of changes with USTAC and EPA
Thursday May 4th, 2017	Conduct USTAC ₃ Meeting
Thursday July 1, 2017	Make any necessary changes to 3rd draft and share with USTAC and EPA
July 1, through September 15, 2017	EPA Review
Thursday November 9, 2017	Share Draft 4 with USTAC and EPA
Wednesday November 15, 2017	Conduct USTAC ₄ Meeting
Tuesday and Thursday January 16 and 18, 2018	Conduct Public Workshops
Thursday, March 15, 2018	Proposed Regulations to State Register

Meeting Governance

USTTAC Meeting Ground Rules



- Start and End on Time
- No side conversations
- Respect the agenda
- Keep an open mind
- Respect differences of opinion
- No personal attacks
- Be positive
- Speak one at a time and give everyone a chance to speak
- Be honest and have trust
- Ask questions
- Help facilitator, scribe and note taker capture ideas accurately.
- State a purpose when introducing each new topic.
- Decisions by consensus with motions and votes
- Bio breaks as needed
- Share responsibility for team's progress



What would you like the USTAC to work on?

Grouped items into Categories-53 Ideas and Suggestions

Program Administration

Website/Data Management

Training/ Education

Technical

Process Improvements-Installation Process

Technical

Retrofits

UST Testing/30 Day Inspection Requirements

Common Themes



What would you like the USTAC to work on?

Program Administration

1. Focus on non-compliant USTs.
2. Look at developing an Ad-hoc committee that meets periodically like MD.
3. Cleanups – Increase funding



What would you like the USTAC to work on?

Website/Data Management

4. Can reporting by owner be done online and stored in database? To allow for statistical analyses of monitoring, detection hydro water level, water quality in wells.
5. Date all regs – updates on website to ensure we are using current regs.
6. Website search field – able to search for specific questions (i.e., when is training required? what are reporting requirements?). Allows you to click on that section of the regulations.



What would you like the USTAC to work on?

Training/Education

7. Operator training and training materials.
8. Should DNREC develop a “tester” certification or registration?
9. Outreach for tank owners and realtors.
10. Educational needs and mandates.
11. Understanding of changes to notice for activities.



What would you like the USTAC to work on?

Process Improvements/Installation

12. Reduce permit review time.
13. Provide an exact checklist/Rep's for install permits.
14. Reduce/Eliminate retrofit permits requirements.
15. Retrofit permit process.
16. Clear, written permit requirements for tank installations.
17. Tank installation permit process.
18. Reform permit process so it does not take 6 months for review and approval.
19. Timeliness for permits being returned/approved.
20. Decrease permitting time.
21. Streamline permitting process.
22. Review of current finances/funding – permit fee structures.



UST Installation/Retrofit Process Improvements

- Meeting was held December 16, 2016 with Mid Atlantic Petroleum Distributors Association, Baker Petroleum, WaWa, Royal Farms, Sunoco, SMO .
- Shared perspectives on how to shorten the time necessary to obtain Department approval of a UST installation plan and eliminate the need for multiple rounds of comments and re-submittal of documents.



UST Installation/Retrofit Process Improvements

- DNREC-TMS agreed to copy owners on deficiency letters sent to contractors or consultants that prepare the installation plans.
- DNREC-TMS agreed to share information concerning how other states conduct UST installation reviews.
- DNREC-TMS will require a mandatory meeting with the owner and their consultant or contractor when a review of any specific project takes more than three rounds of comments and submittals for the application to be considered complete.



UST Installation/Retrofit Process Improvements

- Owners expressed a desire for DNREC-TMS to maintain a library of cut sheets describing specific equipment included in UST installation plans, so that the same information doesn't have to be re-submitted with each application.
- Owners expressed a need for the Department to allow some retrofits such as a spill bucket replacement to occur with only a requirement to notify the Department verses obtaining a written approval prior to work being allowed to proceed.
- DNREC-TMS has hired a second engineer for plan reviews.
- DNREC-TMS has posted an installation plan checklist on our website.
- DNREC-TMS goal to reduce the average time from submittal to initial review to 60 days.

What would you like the USTAC to work on?



Technical

- 23. Less discretion in regs (need to be clearer).
- 24. Alignment of Fed Regs and DNREC Tank Regs (try not to make the DNREC Regs more onerous than Fed Regs).
- 25. Stormwater coordination with MS4 industrial stormwater program.
- 26. How AST piping will be addressed and coordinating with AST regulations.
- 27. Pre-2008 double walled product lines.
- 28. Any DEF (Diesel Exhaust Fluid) mention in the new regs?

What would you like the USTAC to work on?



Technical

- 29. Overfill protection methods: flapper requires fuel delivery truck to have flapper tool?
- 30. Reconsider CPM utilization with Stage II Decommissioning.
- 31. Mandate STP & Dispenser Sump Installation.
- 32. Any thought on getting fuel carriers involved since they affect the delivery of fuels to a UST System. Carriers need to be responsible to avoid overfills.
- 33. Provide assistance in determining how to respond to microbes in diesel – hopefully this will be resolved prior to EPA lowering sulfur content in gasoline.

What would you like the USTAC to work on?



Retrofit

- 34. Address emergency repairs/retrofits.
- 35. Guidelines for retrofit testing.

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

- 36. Clarify all testing requirements – be consistent.
- 37. Clear testing and compliance guidelines.
- 38. Monthly inspections – requirements/details of inspection items (sumps).
- 39. Reconsider operator inspections when containment monitoring is present.
- 40. Frequency of sump testing.

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

41. Can sump testing protocol follow federal recommended practices (3 yr. – filling sumps completely vs. above penetration).
42. Change monthly visual sump inspections to Federal annual walk through inspection.
43. For those with electronic sensors in the sumps, would like to see Reg A rewritten to allow less frequency to inspect vs those without electronic sensors.
44. Should DNREC adopt standardized forms for documenting newer testing and inspection requirements such as PEI RP1200?

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

- 45. Would DNREC consider incorporating PEI RP1200 into the regs for completing all the new testing that is mandated?
- 46. Accepting new technology
 - sensors for STP containments follow the EPA for STP sump checks – annually.
 - monthly release detection reports accept 3rd party reporting documents.
- 47. Release detection of piping: interstitial monitoring required? Frequency done by owner?
- 48. What detection methods to allow: interstitial monitoring.

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

- 49. Statistical Report – essentially a “fuel” budget, why not allowable primary detection method. Are other methods really better? Others may depend on sensors that stop working. But inventory would need to be high frequency like daily.
- 50. Focus on preventative groundwater pollution monitoring efforts.
- 51. Consider requiring double-walled spill buckets and maybe cut back on testing requirements (maybe every 2-3 years instead of annual).
- 52. What are the 30 day monthly inspections going to entail?
- 53. Frequency of walk around inspections: continuous sensors in place = less frequent vs. no continuous sensors in place = more frequent.



Discussion of Draft Changes to UST Regulations

Draft changes based on Federal Rule Changes

- Airport Hydrant Fuel Systems and Field Constructed Tanks
- Emergency Generator Tanks
- Operator Training
- 30 Day Walk Around Inspections
- Overfill Protection
- Secondary Containment
- Containment Sump Testing
- Other Definitions
- Reference Standards

Removing Deferrals for Field-Constructed USTs and Airport Hydrant Fuel Distribution Systems

- ***New Federal Requirements:***
 - Requires Release Reporting, Spill Prevention, Overfill Prevention, Release Protection, Cathodic Protection, Operator Training.
 - Exceptions to meeting secondary containment requirement for some FCT & AHS piping
 - Provides unique options for meeting release detection requirements



Removed Partial Deferral-Pg. 2

1.2.2 → → → → The requirements contained in these Regulations with the exception of requirements in Part A, §1.3 and Part E of these Regulations do not apply to any of the following UST Systems:¶

1.2.2.1+ → → → → → Any UST System containing radioactive material that is regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011).¶

1.2.2.2+ → → → → → Any UST System that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission in accordance with 10 CFR Part 50, Appendix A.¶

~~1.2.2.3+ → → → → → Airport Hydrant Fuel Systems.¶~~

~~1.2.2.4+ → → → → → UST Systems with field constructed tanks.¶~~

1.2.2.45 → → → → → Wastewater treatment tank systems.¶



Changed Definitions Pgs. 3 & 5

"Airport Hydrant Fuel System" means a UST system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants, also known as fill stands. The airport hydrant system begins where fuel enters one or more tanks from an external source such as a pipeline, barge, rail car, or other motor fuel carrier.

"Field-Constructed Tank" means a UST which is constructed by assembling on-site at a Facility.

Consistent with New Federal Definitions



Added Technical Standards

Part H: Field Constructed Tanks Pg. 253

Part I : Airport Hydrant Fuel Systems Pg. 258

Requirement	Effective date
Upgrading UST systems; general operating requirements; and operator training	Three years after the most recent effective date of these regulations
Release detection	Three years after the most recent effective date of these regulations
Closure; financial responsibility and notification (except as provided in paragraph (b) of this section)	Six months after the most recent effective date of these regulations
Release reporting, response, and investigation	already in effect

Draft regulations are more stringent in that we are not allowing vapor or groundwater monitoring for piping release detection.



Removing Deferral for Emergency Generator USTs

DNREC has had requirements release detection for emergency generator USTs since 2008.

New Federal Requirements:

- Removes the deferral and requires release detection for existing tanks and piping associated with Emergency Generator USTs. New installations must meet all standards.

What DNREC will need to change:

- New and existing emergency generator USTs release detection for piping will need to be modified.





Part B 1.3 Emergency Gen. Pg. 52

1.30.3 → → → Owners and Operators of UST Systems used solely for the storage of a Regulated Substance to power emergency generation equipment may utilize ~~monthly annual~~ tank tightness testing or continuous interstitial monitoring for double walled UST Systems as a method of Release Detection for the life of the UST provided the tank tightness testing is performed in accordance with the tank tightness test requirements in §2.9.7 of this Part, or may utilize a method in §1.9 of this Part.¶

Part B 2.31 Emergency Gen. Pg. 88

2.31.3 → → → Owners and Operators of UST Systems used solely for the storage of a Regulated Substance to power emergency generation equipment may utilize monthly tank tightness testing for single walled UST Systems and continuous interstitial monitoring for double walled UST Systems as a method of Release Detection for the life of the UST provided the tank tightness testing is performed in accordance with the tank tightness test requirements in §2.9.7.2-2.9.7.6.4 of this Part, or may utilize any method in §2.9 of this Part.¶

Operator Training Requirements

DNREC Has Had UST Operator Training Requirements in Place Since 2010

New Federal Requirements:

- Owners must designate and ensure 3 classes (A,B, & C) of operators are trained
- Recordkeeping is required for as long as the operator is designated at the facility
- Retraining is required for Class A and B operators at facilities determined to be out of compliance

Part A 2.0 Definitions Pg. 3



- → → "Class A Operator" means ~~the~~an individual ~~who has~~having primary responsibility ~~to operate and maintain~~maintaining ~~the~~for the overall operation and maintenance of an UST System in accordance with applicable requirements established by the implementing agency. The Class A operator typically manages resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.¶
- → → "Class B Operator" means ~~the~~an individual ~~who has day-to-day~~having responsibility ~~for implementing applicable regulatory requirements established by the implementing agency. The Class B operator typically implements in-field aspects of and direct control over daily on-site operation and maintenance, and associated recordkeeping for the of an UST System.~~¶
- → → "Class C Operator" means ~~the~~an individual responsible for initially, ~~on-site employee having primary responsibility for~~ addressing emergencies presented by a ~~spill or release~~Release from an UST System. The Class C operator typically controls or monitors the dispensing or sale of regulated substances.¶

Consistent with New Federal Definitions.



Part A 2.0 Definitions Pg. 12

→ → → "Training Program" means any program that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator through testing, practical demonstration, or another approach acceptable to the implementing agency regarding requirements for UST Systems that meet the requirements of Part A, §10.0 Requirements. for Operator Training 40 CFR Parts 280 Technical Standards and Corrective Action Requirements for Owners and Operators of USTs, Subpart J—Operator Training, §280.240]. ¶

Consistent with New Federal Definition.

Part A 10 Operator Training Pg. 27



10.1.6 At a minimum, the training program must evaluate Class A and Class B Operators to determine these individuals have the knowledge and skills to make informed decisions regarding compliance and determine whether appropriate individuals are fulfilling the operation, maintenance, and recordkeeping requirements for UST Systems in accordance with §10.1.10 of this Part.

Training Programs must have a test.

30 Day Walk Around Inspections



DNREC Has Had Routine Inspection Requirements in Place Since 2008

New Federal Requirements:

- Walk around inspection every 30 Days
 - Check spill prevention equipment
 - Check release detection equipment and records
- Annually
 - Check containment sumps
 - Check hand held release detection equipment

What DNREC will need to change:

- 28-31 Days will Change to every 30 Days
- DNREC is currently more stringent in inspecting containment sumps as part of 30 day walk around inspection.



Part B 1.31 Routine Inspections Pg. 53

1.31.1 → → → → Owners and Operators shall conduct an inspection at an interval no less frequently than once ~~every thirty (30)~~ ~~every twenty-eight (28) to thirty-one (31)~~ calendar days to monitor the condition of the UST System including but not limited to all dispensers, dispenser sumps, access ports, spill containment devices, sumps and Containment Sumps. The routine inspection shall at a minimum include the following.¶

1.31.1.5 → → → → → → → The inspection of all hand held release detection equipment, such as, but not limited to, tank gauge sticks or groundwater bailers, for operability and serviceability.¶

Requirements for Overfill Protection



New Federal Requirements:

- Overfill protection equipment will be checked every 3 years.
- Inspect to make sure overfill operates as intended
- Ball Floats will not be allowed on retrofit or new installations.



What DNREC will need to change:

- DNREC will add a three year inspection requirement for owners/operators to demonstrate that overfill equipment functions properly.
- Prohibition on installing ball floats at new installation or when replacement is needed.



What DNREC would like to change: Phase out the use of ball floats on all systems.



Part B 1.22 Overfill Protection Pg. 53 & 78

1.22.3 → → → Owners and Operators shall install and maintain **overfill** prevention equipment that shall:¶

1.22.3.1 → → → → → Automatically shut off the flow into the UST when the UST is no more than ninety-five (95%) percent full; or¶

1.22.3.2 → → → → → Alert the transfer operator when the UST is no more than ninety (90%) percent full by ~~restricting the flow into the UST or~~ triggering a high-level alarm.; ~~or~~¶

1.22.3.3 → Vent-line flow restrictors (ball float valves) shall not be utilized for **overfill** prevention not later than three (3) years after promulgation of these Regulations.¶

Part B 1.22 Overfill Protection Pg. 53



1.22.6 → → → Owners and Operators shall ensure that overfill prevention equipment must be inspected at least once annually. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in §1.22.3 of this Part and will activate when regulated substance reaches that level. Inspections must be conducted in accordance with §1.9.4 of this Part.¶

Secondary Containment Requirements

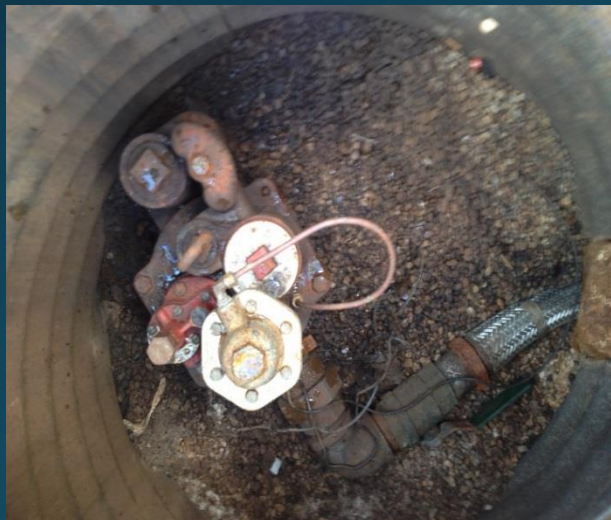
DNREC Has Had Secondary Containment Requirements in Place Since 2008

New Federal Requirements:

- Requires new and replaced tanks and piping to be double walled.
- Requires interstitial monitoring (and sumps if they are used for interstitial monitoring)
- Requires under-dispenser containment for new dispenser systems

What DNREC would like to change:

- Phase out non liquid tight containment found at the tank top and under dispensers.



Part A 2.0 Definitions Pg. 5



→ "Dispenser" means equipment located aboveground that dispenses regulated substances from the UST System.¶

→ "Dispenser System" means the dispenser and the equipment necessary to connect the dispenser to the underground storage tank system.¶

→ → "Liquid Tight" means under dispenser containment and UST top sumps that are impervious to the substance contained, or to be contained, so as to prevent seepage of Regulated Substance from the containment into the environment.¶



Part A 2.0 Definitions Pg. 11, 12

→ → "Secondary Containment" or "Secondarily Contained" means a release prevention and release detection system for a tank or piping. This systems has an inner and outer barrier with an interstitial space that is monitored for leaks. This term includes containment sumps when used for interstitial monitoring or piping installed to prevent any volume of Regulated Substance Released from the Tank and Piping system from reaching the soils or water outside the system for the anticipated period of time necessary to detect and recover the Released substance.¶

→ → → "Under-Dispenser Containment" or "UDC" means containment underneath a dispenser system designed to prevent leaks from the dispenser and piping within or above the UDC from reaching soil or groundwater.¶

We still need to add a definition for Containment Sump.



Part B 1.4.3 Secondary Containment Pg. 30,31

1.4.3 → → → → Secondary **containment** systems shall include the following: ¶

1.4.3.1+ → → → → → → Double-walled Tank; and¶

1.4.3.2+ → → → → → → Double-walled Regulated Substance and vapor return Piping and, where required, vent Piping; and¶

1.4.3.3+ → → → → → → **Containment** Sumps at the Tank top and under each dispenser **(UDC)** that meet the requirements of §1.25 of this Part; A dispenser system is considered new when both the dispenser and the equipment needed to connect the dispenser to the underground storage tank system are installed at an UST facility. The equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are underneath the dispenser and connect the dispenser to the underground piping. The UDC must be Liquid-Tight on its sides, bottom, and at any penetration. UDC must allow

31¶

for visual inspection and access to the components in the **containment** system or be periodically monitored for leaks from the Dispenser System; and¶



Part B 1.25.1.1 Secondary Containment Pg. 47

→ 1.25.1.1 → → → → All Dispenser, Tank top, transition and any other Containment Sumps of single wall design and not considered Liquid Tight be prohibited three (3) years after promulgation of these Regulations and shall be replaced prior to and no later than three (3) years after promulgation of these Regulations. ¶

Eliminates Sumps that are not liquid tight.



Containment Sump Testing

DNREC Has Had Containment Sump Testing Requirements in Place Since 2008

New Federal Requirement:

- Test sumps used for piping interstitial monitoring to ensure they are liquid tight every 3 years.
 - Double-walled sumps with periodic interstitial monitoring between the containment sump walls are not required to meet the testing requirement
 - Keep records for 3 years



What DNREC would like to change:

- If used for interstitial monitoring require containment sumps to be tested annually.
- All other containment sumps should be tested to see if they are liquid tight every three years.





Part B 1.25.1 Liquid Tight Sump Test Pg. 47

1.25 → → → **Containment Sump** Requirements for UST Systems Storing Regulated Substance excluding Consumptive Use Heating Fuel or Hazardous Substance¶

1.25.1 → → → → All **D**ispenser, Tank top, transition and any other **Containment Sumps** of single wall design shall be **Liquid Product** Tight and shall be tested for **Liquid Product** tightness once every thirty-six (36) months, or in accordance with the manufacturers' specifications, or when deemed necessary by the Department to determine if a threat to human health, safety or the environment exists.¶

Additional language still needs to be added to require annual tightness testing if sumps contain sensors.

Part B 1.27.3 Sensor Testing Pg. 48

1.27.3 → → → → All sensors installed in a sump for the purpose of detecting a Release from the UST System shall be installed **directly on no more than one inch (1") from the bottom at the lowest point** of the sump **and/or in accordance with the manufacturer's specifications** such that the sensor is capable of detecting any accumulation of Regulated Substance.¶



Other Changes Related to Federal Reg Change

Definition of Repair and Replace Pg. 10

- → → "Repair" means to restore to proper operating condition a tank, pipe, spill prevention equipment, corrosion protection equipment, release detection equipment or other UST System component that has caused a release of product from the UST System or has failed to function properly, or replace an UST System component that is not functioning per manufacturer's specifications or Department requirements. ¶
- → → "Replaced" means ¶
 - (a) → For a tank — to remove a tank and install another tank. ¶
 - (b) → For fiberglass reinforced piping — to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run. ¶
 - (c) → For flexible plastic piping — if any of the piping is damaged, all of the piping must be removed. ¶

DNRC-TMS still working on definition of Replaced to ensure current practice is consistent with EPA definition.



Other Changes Related to Federal Reg Change

Definition of Liquid Tight Added, Product Tight Deleted Pg. 8 & 11

→ "Liquid Tight" means under dispenser containment and UST top sumps that are impervious to the substance contained, or to be contained, so as to prevent seepage of Regulated Substance from the containment into the environment. ¶

→ → → ~~"Product Tight" means under dispenser containment and UST top sumps that are impervious to the substance contained, or to be contained, so as to prevent seepage of Regulated Substance from the containment into the environment. ¶~~



Part A Reference Organizations and Standards (Pages 14-17)

Reference Standards were added based on changes to the federal regulations to comply with technical requirements or because they were newly cited by DNREC.

Examples:

3.3.5.5 RP 1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*

3.3.5.4 RP 1000 *Marina Fueling Facility Systems (2014 Edition)*

Still need to list specific editions of the documents.



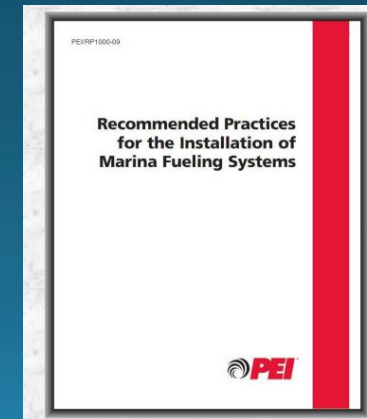
Initial Draft Of Changes to UST Regulations

Changes not driven by Federal Rule Changes

- Additional Rules for USTs located at Marinas
- Consistency with ITRC Regarding NAPL Definitions
- Sustainable Remediation Techniques
- Use of Institutional Controls

Additional Requirements for USTs at Marinas

- Definitions of Marina UST, Marina Fueling Facility
- Referenced PEI RP 1000
- Require upgrade to marine grade equipment at new installation and retrofit.





Part A 2.0 Marina UST System, Marina Fueling Facility

Pg. 7

→ → “Marina Underground Storage Tank System” means any UST System and its associated Ancillary Equipment and containment system, if any, maintained and operated at a Marina Fueling Facility. ¶

→ “Marina Fueling Facility” means any land-based fueling facility that dispenses fuel over, adjacent to, or in close proximity to the water for the purpose of fueling watercraft. ¶



Part B 1.33 Additional Requirement for USTs at Marina Fueling Facilities

Pg. 54

1.33 → Additional Requirements for UST Systems at Marina Fueling Facilities. ¶

1.33.1 → Marina UST Systems shall comply with all applicable requirements of these Regulations. ¶

1.33.2. Marina UST Systems installed or Retrofitted after the most recent date ¶

following promulgation of these Regulations, shall comply with the following requirements: ¶

1.33.2.1. → Marina UST Systems shall be installed and Retrofitted in accordance with the most recent edition of PEI RP1000 or other method approved in writing by the Department no less than thirty (30) days prior to installation. ¶

1.33.2.2. → The dispenser(s) shall be located where it is least likely to be impacted by watercraft. ¶

1.33.2.3. → All Ancillary Equipment, Piping, conduit, dispenser sumps, hoses, valves, nozzles, and all other parts of the Marina UST System that are in direct contact with or are above the water shall be constructed of Marine grade material. ¶

Sustainable Remediation Techniques

- Referenced ASTM and ITRC Guidance
- Encouraged but not required
- Incorporated into Remedial Action Workplans



Part E 5.2.11 Sustainable Remediation Pg. 181

181

5.2.11 → → → → The RAWP may include green sustainable remediation practices, processes, and technologies in accordance with ASTM (ASTM International) E2893-16 Standard Guide for Greener Cleanup, ITRC (Interstate Technology & Regulatory council), Green and Sustainable Remediation: State of the Science and Practice, GSR-1 and ITRC (Interstate Technology & Regulatory Council), Green and Sustainable Remediation: A Practical Framework, GSR-2.



Institutional Controls

- Acknowledge that institutional controls can be incorporated into a remedial action workplan to manage the risk from exposure to hazardous substances.
- When required ensure the institutional control has been put in place before issuing a No Further Action Letter
- Deed Notices
- GMZ's
- Environmental Covenants



Part E 5.2.12 Institutional Controls Pg. 181

5.2.12 → → → → The RAWP may include the use of Institutional Controls to reduce the potential for exposure to hazardous substances. Institutional Controls may include land use restrictions, activity restrictions, groundwater use restrictions, operations and maintenance requirements, or other Institutional Controls. ¶



Part E 6.1.1.4 Institutional Controls Pg. 182

6.1.1 → → → → After all Corrective Actions are complete and cleanup goals have been achieved, the Responsible Parties shall submit a written request to the Department for no further action (NFA). The request for no further action shall include but is not limited to the following documentation: ¶

6.1.1.1+ → → → → → → A demonstration that the site does not threaten human health, safety and the environment based on current land use of the site and surrounding area; and ¶

6.1.1.2+ → → → → → → LNAPL does not exist or has been addressed in accordance with §3.3 of this Part; and ¶

6.1.1.3+ → → → → → → Contaminant levels have been reduced to levels at or below the cleanup goals approved by the Department and; ¶

6.1.1.4+ → → → → → → Institutional Controls as required by the Department, including but not limited to, the replacement of an Environmental Covenant (EC) on a facility, as provided for in 7 Del. C. §§7907-7920, the Uniform Environmental Covenants Act (UECA) have been established. ¶

Part A Changes to Definitions



- **“Conceptual Site Model (CSM)”** means a comprehensive graphical model and written summary describing what is known or hypothesized about environmental contamination at a site and the relationship among key site information that are pertinent to decision-making. A CSM is a model or representation that evolves over the life cycle of site investigation and cleanup efforts and provides a platform for evaluating the data gaps and related uncertainty associated with site history and operations; geology, hydrogeology and hydrology; contaminant sources, release mechanisms and fate and transport; potential receptors and exposure pathways.

Consistent with ITRC Definition.

Part A Changes to Definitions



- "Mobile **LNAPL**" means LNAPL that is hydraulically connected in the pore space, exceeds residual saturation, and had the potential to migrate both vertically and laterally. "Formerly Free NAPL"

"Migrating **LNAPL**" means mobile LNAPL that is moving laterally and vertically in the environment under prevailing hydraulic conditions. (The result of the LNAPL movement is a net mass flux from one point to another. Not all Mobile LNAPL is migrating, but all Migrating LNAPL must be Mobile LNAPL. "Formerly Mobile NAPL"

Consistent with ITRC Definitions.

Potential to move verses actual moving.



Promulgation Schedule

Wednesday April 19th, 2017	Share 2nd draft of changes with USTAC and EPA
Thursday May 4th, 2017	Conduct USTAC ₃ Meeting
Thursday July 1, 2017	Make any necessary changes to 3rd draft and share with USTAC and EPA
July 1, through September 15, 2017	EPA Review
Thursday November 9, 2017	Share Draft 4 with USTAC and EPA
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Tuesday and Thursday January 16 and 18, 2018	Conduct Public Workshops
Thursday, March 15, 2018	Proposed Regulations to State Register



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Written Comments on the Draft
Regulations Can be sent to

DNREC_USTRegulations@state.de.us



Opportunities for public participation and
public comments.

Next Meeting Date Thursday May 4th, 2017
10AM-12PM